This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Please replace the current listing of claims with the following replacement listing of claims.

21. (Currently amended): A process for producing a glass melt, comprising the steps of:

melting glass in a first stage;

refining the melt in a second stage, the melt having a polyvalent ion content of at least 0.5 wt. %, with ~~at least one of said melting and~~ the refining ~~steps~~ step conducted at a temperature of at least 1800° C; and

homogenizing and conditioning the glass in a third stage.

22. (Currently amended): The process of ~~Claim 1~~ Claim 21, wherein ~~at least one of~~ said melting ~~and refining steps~~ step is conducted at a temperature ~~of between 2100° C and 2400° C~~ higher than 1700° C.

23. (Currently amended): The process of ~~Claim 1~~ Claim 21, wherein ~~at least one of~~ said melting ~~and refining steps~~ step is conducted at a temperature ~~of at least 2400° C~~ higher than 2400° C.

24. (Currently amended): The process of ~~Claim 1~~ Claim 21, wherein said refining step is conducted at a temperature of between 1800° C and 2400° C.

25. (Currently amended): The process of ~~Claim 1~~ Claim 21, wherein said polyvalent ions comprise one or more ions selected from the group consisting of vanadium, cerium, zinc, tin, titanium, iron, molybdenum, europium, manganese, and nickel.

26. (Currently amended): The process of ~~Claim 1~~ Claim 21, wherein said melt is free from toxic refining agents.

27. (Currently amended): The process of ~~Claim 1~~ Claim 21, wherein said refining step is conducted by heating the melt in a crucible using an induction coil.

28. (Previously presented): The process of Claim 22, wherein said refining step is conducted at a temperature of between 1800° C and 2400° C.

29. (Previously presented): The process of Claim 23, wherein said refining step is conducted at a temperature of between 1800° C and 2400° C.

30. (Previously presented): The process of Claim 22, wherein said polyvalent ions comprise one or more ions selected from the group consisting of vanadium, cerium, zinc, tin, titanium, iron, molybdenum, europium, manganese, and nickel.

31. (Previously presented): The process of Claim 23, wherein said polyvalent ions comprise one or more ions selected from the group consisting of vanadium, cerium, zinc, tin, titanium, iron, molybdenum, europium, manganese, and nickel.

32. (Previously presented): The process of Claim 24, wherein said polyvalent ions comprise one or more ions selected from the group consisting of vanadium, cerium, zinc, tin, titanium, iron, molybdenum, europium, manganese, and nickel.

33. (Previously presented): The process of Claim 26, wherein said polyvalent ions comprise one or more ions selected from the group consisting of vanadium, cerium, zinc, tin, titanium, iron, molybdenum, europium, manganese, and nickel.

34. (Previously presented): The process of Claim 22, wherein said melt is free from toxic refining agents.

35. (Previously presented): The process of Claim 23, wherein said melt is free from toxic refining agents.

36. (Previously presented): The process of Claim 24, wherein said melt is free from toxic refining agents.

37. (Previously presented): The process of Claim 25, wherein said melt is free from toxic refining agents.

38. (Previously presented): The process of Claim 22, wherein said refining step is conducted by heating the melt in a crucible using an induction coil.

39. (Previously presented): The process of Claim 23, wherein said refining step is conducted by heating the melt in a crucible using an induction coil.

40. (Previously presented): The process of Claim 24, wherein said refining step is conducted by heating the melt in a crucible using an induction coil.